

Claims:

1. A method of treatment with photodynamic therapy comprising:

(a) administering photosensitizer to an area of skin where hair growth is desired; and

- 5 (b) irradiating the area with energy containing a wavelength appropriate to activate the photosensitizer;

wherein there is 2% or more increase in the number of terminal hairs in the treated area within 3 months.

- 10 2. A method of treatment with photodynamic therapy comprising administering photosensitizer to an area of skin where hair growth is desired and irradiating the area with energy containing a wavelength appropriate to activate the photosensitizer wherein the treatment delivers a low dose of PDT and result in an increase in the number of terminal hairs in the treated area.

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3. A method according to Claim 2 wherein there is a 2% or more, preferably 3% or more, more preferably 4% or more, increase in the number of terminal hairs in the treated area.

- 20 4. A method according to Claim 1 wherein there is 3% or more, preferably 4% or more, increase in the number of terminal hairs in the treated area within 3 months.

5. A method according to any of the preceding claims wherein the photosensitizer is administered topically to the area where hair growth is desired..

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6. A method according to any of the preceding claims wherein the photosensitizer is administered topically and is massaged on the area where hair growth is desired.

7. A method according to any of the preceding claims wherein the photosensitizer is administered in the form of a topical formulation having a viscosity at 20°C of from about 50 cps to about 50000 cps.
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8. A method according to any of the preceding claims wherein the photosensitizer is selected from pro-porphyrins, porphyrins, porphyrins derivatives, and mixtures thereof.
- 5 9. A method according to any of the preceding claims wherein the activation energy is delivered 5 minutes to 4 hours after the administration of the photosensitizer.
10. A method according to any of the preceding claims wherein the total dose of the activation energy does not exceed 200 J/cm^2 , preferably 100 J/cm^2 .
- 10 11. A method according any of the preceding claims wherein the subject is additionally treated with at least one non-photodynamic treatment that causes an increase in the number of terminal hairs within the treatment area.
- 15 12. A method according to any of the preceding claims wherein the wherein the subject is treated with at least one non-photodynamic treatment selected from 5-alpha reductase inhibitors, minoxidil, hair transplantation, scalp reduction, and combinations thereof.
- 20 13. A method of treatment with photodynamic therapy comprising administering a photosensitizer to an area where an increase in the number of terminal hairs is desired and irradiating that area with activation energy of an appropriate wavelength to activate the photosensitizer, wherein said method increases the level of pro-inflammatory cytokines in the area treated.
- 25 14. A method according to Claim 13 wherein the pro-inflammatory cytokine is selected from granulocyte-macrophage colony stimulating factor, interleukin-1- α , interleukin-1- β , and combinations thereof.
- 30 15. A method according to any of the preceding claims wherein the subject is suffering from hair loss caused by androgenetic alopecia.
16. A method of determining the increase in hair growth in a subject's skin exhibiting hair growth reduction or hair loss, said method comprising:

- (a) administering a photosensitizer to said skin;
- (b) irradiating said skin with electromagnetic energy containing a wavelength absorbed by said photosensitizer to activate it; and
- (c) measuring the increase in hair growth,

5 wherein an increase in hair growth in comparison to skin that has not been treated with both a) and b) can be determined.

17. The method of Claim 16 wherein said photosensitizer is selected from those which absorb radiation in the range 400nm to 800nm.

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18. The method of Claim 16 or 17 wherein the photosensitizer is administered by topical application.

19. The method of Claim 16, 17 or 18 wherein said electromagnetic energy is visible light.

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20. The method of Claim 16, 17, 18 or 19 wherein the increase in hair growth is measured by counting the number of terminal hairs, measuring hair weight, measuring hair density, and/or measuring hair shaft diameter.